

Amendments to the Specification

Please replace the paragraph beginning at page 18, line 31, with the following rewritten paragraph.

In particular, a hydrophobic anchor may comprise a fatty acyl group attached to the amino terminus or near the carboxyl terminus of the peptide antigen. One example is the twelve-carbon chain lauroyl ($\text{CH}_3(\text{CH})_{10}\text{CO}$), although any similarly serving fatty acyl group including, but not limited to, acyl groups that are of eight-, ten-, fourteen-, sixteen-, eighteen-, or twenty-carbon chain lengths can also serve as hydrophobic anchors. The anchor may be linked to the peptide antigen using an immunopotentiating spacer. Such a linker may consist of four amino acids (CYGG (SEQ ID NO: 17) or GGYC (SEQ ID NO: 18)), which may assist in maintaining the conformational structure of the peptide. It is appreciated that for either the amino or carboxyl terminus anchors, using three to six glycine residues as spacers instead of two glycine residues would also function in this manner, and the preferred number of glycine residues may be dependent upon, and relative to, the size and conformation of the antigenic peptide used.

Please replace the paragraph beginning at page 21, line 7, with the following rewritten paragraph.

A hydrophobic anchor consisting of a fatty acyl group was attached to the J14 peptide either at that amino terminus or near the carboxyl terminus. For this example, the twelve-carbon chain lauroyl ($\text{CH}_3(\text{CH})_{10}\text{CO}$) was used, although any similarly serving fatty acyl group including, but not limited to, acyl groups that are of eight-, ten-, fourteen-, sixteen-, eighteen- or twenty-carbon chain lengths can also serve as hydrophobic anchors. The anchor was further distinguished by being linked to the J14 peptide using an immunopotentiating spacer consisting of four amino acids (CYGG (SEQ ID NO: 17) or GGYC (SEQ ID NO: 18)), which also assisted in maintaining the conformational structure of the J14 peptide. It is appreciated that for either the amino or carboxyl terminus anchors, using three to six glycine residues as spacers instead of two glycine residues would also function in this manner, and the preferred number of glycine

residues may be dependent upon, and relative to, the size and conformation of the antigenic peptide used.

Please replace the paragraph beginning at page 21, line 20, with the following rewritten paragraph.

Two custom designed anchored peptide constructs were synthesized using known organic chemistry methodologies. The amino-terminal J14 construct (nJ14) consisted of the carboxyl terminus of the anchor covalently linked to the amino terminus of the J14 peptide, resulting in lauroyl-CYGG-J14, where CYGG (SEQ ID NO: 17), as per the single letter designation of amino acids, represents the amino acid sequence cysteine-tyrosine-glycine-glycine. The carboxy-terminal J14 construct (cJ14) consisted of the anchor linked toward, but not at, the carboxyl terminus of the J14 peptide. The cJ14 construct differs significantly from the nJ14 construct. The anchored peptide for the cJ14 construct was designed and synthesized so that the anchor and immunopotentiating spacer consisted of the following sequence: (K)-(GGYC-lauroyl) (SEQ ID NO: 19), which represents, as per the single amino acid convention, (lysine)-(glycine-glycine-tyrosine-cysteine- -lauroyl). Note that a lysine residue was added to the amino terminus of the J14 peptide in addition to the original carboxyl terminus lysine of the J14 peptide. Furthermore, as indicated by the dash between the (K) and the (GGYC-lauroyl), the -(GGYC-lauroyl) was covalently linked via the epsilon amino group of the side chain of the added carboxyl terminus lysine. This linkage was designed to facilitate anchor function while maintaining the conformational structure of the antigenic peptide. The additional length and unique structure of this construct is considered to have been instrumental in facilitating the immunogenicity of this construct alone and especially in a preferred embodiment which is when it is hydrophobically complexed to proteosome adjuvant vesicles to form the proteosome-(cJ14) vaccine. It is understood that the terms "C-terminal", C-terminal J14", "cJ14" or other such shorthand nomenclature, when used herein alone or in combination with Proteosome adjuvant vaccines refers to the construct described above.

Application No. 10/706,275
Reply to Office Action dated November 9, 2005

Please delete the section of the application entitled "Sequence Listing" immediately after the section of the specification entitled "Abstract" on page 44 and insert the enclosed Sequence Listing therefor.